

REMARKS:

Claims 1-34 remain pending in the application, with claims 1, 18 and 31-34 being the independent claims. Reconsideration and further examination are respectfully requested.

Initially, it is noted that each of the independent claims has been amended above to correct an apparent typographical error. No substantive change is intended nor is any believed to have been effected.

In the Office Action, claims 1-34 were rejected under 35 USC § 103(a) over U. S. Patent 6,665,702 (Zisapel) over U. S. Patent 6,731,314 (Cheng). Withdrawal of this rejection is respectfully requested for the following reasons.

The present invention concerns systems, methods and techniques for permitting the transmission of geographic-specific information over a network such as the Internet. Generally speaking, according to the present invention a data packet is received by a first node on a network from a second node on the network. Based on some indication of the number of hops made by the data packet (e.g., an embedded TTL value), a probe packet is sent out and then, in response, a response packet is received from a device other than the second node. Based on identification information within the response packet, the first node obtains a geographic location and transmits geographic-specific information to the second node.

By virtue of this arrangement, e.g., it often is possible for a server on the Internet to obtain at least a rough estimate of the geographic location of a client node on the Internet, even in situations where the client node has not previously communicated with the server. As a result, the server can provide geographic-specific content to the client node nearly immediately. For example, the first time that a client node visits a Web site provided by the server, the very first

page downloaded to the client node typically will be able to include content that is relevant to the geographic location of the client (e.g., information about local game scores, weather, news or shopping, and/or content in the local language).

It is noted that the techniques of the present invention permit geographic-specific information to be provided even if the client has disabled the storing of "cookies" on his or her hard drive. This is a distinct advantage over conventional techniques which primarily rely on such cookies.

More specifically, independent claims 1, 31 and 33 are directed to communications by a first node on a network with a second node on the network. Initially, the first node on the network receives a data packet over the network from the second node on the network, with the data packet including a network identifier for the second node and a Time-To-Live (TTL) field that has a value, and with the value of the TTL field for the data packet indicating a maximum additional number of hops that could have been made by the data packet. The first node sends a probe packet addressed to the network identifier for the second node, the probe packet also including a TTL field having an initial value that is set based on the value for the TTL field of the data packet. The first node then receives a response packet from a third node on the network, in response to the probe packet, the first, second and third nodes being different nodes on the network. Thereafter, the first node obtains a geographic location for the third node based on node identification information in the response packet and transmits geographic-specific information over the network to the second node based on the geographic location obtained.

The foregoing combination of features is not disclosed or suggested by the applied art. In particular, the applied art does not disclose or suggest at least the features of: setting the initial value of a TTL field for a probe packet based on the TTL value of an incoming data packet,

receiving a response packet from a third node, obtaining a geographic location based on node identification information in the response packet and transmitting geographic-specific information based on the obtained geographic location.

In this regard, Zisapel concerns load balancing. The main thrust of Zisapel's routing technique is that Web requests are routed based on reduced latency, fewer hops, or more available processing capacity at the server. This type of routing is completely unrelated to the present invention, which attempts to geographically locate a network node, irrespective of latency or processing capacity of any node.

The number of hops made by a given packet is only relevant in Zisapel for determining where to route an incoming request. In contrast, in the present invention an estimate of the number of hops made by a packet from a second node can be used for designing a probe packet, which elicits a response from a third node, which is then used to obtain a geographic location, which is used to transmit geographic-specific information to the second node.

Zisapel has nothing at all to do with identifying a geographic location. In fact, Zisapel expressly rejects geographical proximity as a basis for determining where to route an incoming request. See, e.g., column 2 lines 13-19 of Zisapel ("...routing client requests to the geographically nearest server, load balancer, or server farm might not necessarily provide the client with the best service if, for example, routing the request to a geographically more distant location would otherwise result in reduced latency, fewer hops, or provide more processing capacity at the server.") Moreover, Zisapel's reference to geographical location refers to the geographical locations of the server farms, which locations already are known in advance. There is nothing in Zisapel which even remotely suggests sending probe packets in order to identify any geographic location.

Column 5 lines 24-37 was cited in the Office Action as showing the feature of: "the first node on the network receiving a data packet over the network from the second node on the network". However, this portion of Zisapel instead only refers to the polling technique described in column 5 from lines 2-7 of Zisapel, in which network proximities (as defined in column 4 lines 58-64 of Zisapel) are determined. It is unclear what in Zisapel the Office Action is asserting as of the first node and what it is asserting as the second node. Additional clarification in this regard is respectfully requested.

In any event, Zisapel clearly does not say anything at all about setting the initial value of a TTL field for a probe packet based on the TTL value of an incoming data packet, as presently recited. First, column 16 lines 39-46 (which was cited as showing of the first node sending a probe packet addressed to the network identifier for the second node) does not appear to say anything at all about sending a probe packet. Rather, it merely discusses routing based on results of the polling technique mentioned above.

Second, column 8 lines 9-21 (which was cited as showing the setting of an initial TTL value based on the TTL value of the received data packet) instead merely talks about measuring network proximity based on the TTL value of a received reply. It says nothing at all about setting a TTL value for a probe packet based on the TTL value in a received data packet.

Column 7 lines 57-65 of Zisapel was cited in the Office Action as showing the receipt of a response packet from a third node, in response to the probe packet, with the first, second and third nodes being different nodes on the network. However, it is unclear how the cited portion relates in any way to this feature of the invention. Rather, this portion of Zisapel only appears to describe the same polling technique that was mentioned above.

Finally, the Office Action acknowledges that Zisapel does not disclose the features of obtaining a geographic location based on node identification information in the response packet (received from the third node) and transmitting geographic-specific information to the second node based on the obtained geographic location. However, the Office action then goes on to cite Cheng.

The discussion about Cheng mentions certain aspects of Cheng (e.g., a server that holds files for one or more sites) that do not appear to be related to the presently recited claim limitations. However, even the Office Action does not allege that Cheng shows the specific features of the present invention that are acknowledged as being missing from Zisapel.

In short, most of the recited features of independent claims 1, 31 and 33 are missing from the applied art, and the Office Action does not even allege that the applied art shows some of those features. Accordingly, no permissible combination of Zisapel and Cheng could have resulted in the invention recited in the present claims.

For these reasons, independent claims 1, 31 and 33 are believed to be allowable over the applied art. However, if the present rejections are maintained, it is respectfully requested that the Examiner specifically point out where each of the claim limitations is present in the applied art (i.e., what specific element in the applied art each claim limitation reads on). As noted in several places above, Applicant is unable to identify a clear mapping between the present claim limitations and the references to portions of the applied art.

Independent claims 18, 32 and 34 are directed to communications by a first node on a network with a second node on the network. Initially, the first node on the network receives a data packet from the second node on the network, the data packet having arrived at the first node

via an inbound path defined by an ordered sequence of routers, and with the first and second nodes being different nodes on the network. The first node estimates a number of hops made by the data packet based on information contained within the data packet. Then, the first node transmits probe packets designed, based on such number of hops, to elicit responses from a group of network devices that primarily includes a first few routers on the inbound path. Next, the first node receives response packets from the network devices, in response to the probe packet and obtains a geographic location for the second node based on node identification information in the response packets. Finally, the first node transmits geographic-specific information over the network to the second node based on the geographic location obtained.

These claims were rejected for the same reasons as those used in rejecting independent claims 1, 31 and 33. Based on the descriptions of the cited portions of the applied art set forth above, the applied art does not disclose or suggest at least the features of: a first node transmitting probe packets designed, based on the number of hops estimated to have been made by a data packet from a second node, to elicit responses from a group of network devices that primarily includes a first few routers on the inbound path; the first node obtaining a geographic location for the second node based on node identification information in the response packets; and the first node transmitting geographic-specific information over the network to the second node based on the geographic location obtained.

Accordingly, independent claims 18, 32 and 34 are believed to be allowable over the applied art.

The other rejected claims in the present application depend from the independent claims discussed above, and are therefore believed to be allowable for at least the same reasons.

Because each dependent claim also defines an additional aspect of the invention, however, the individual reconsideration of each on its own merits is respectfully requested.

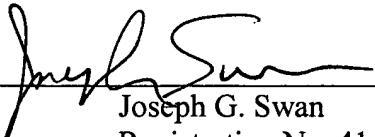
In view of the foregoing remarks, it is believed that the entire application is in condition for allowance, and an indication to that effect is respectfully requested.

If there are any fees due in connection with the filing of this paper that have not been accounted for in this paper or the accompanying papers, please charge the fees to our Deposit Account No. 13-3735. If an extension of time under 37 C.F.R. 1.136 is required for the filing of this paper and is not accounted for in this paper or the accompanying papers, such an extension is requested and the fee (or any underpayment thereof) should also be charged to our Deposit Account. A duplicate copy of this page is enclosed for that purpose.

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